

prevailing, aggravated by the extremely high temperatures. At the beginning of the month conditions were already serious in the eastern Corn Belt, especially in southern Indiana and Illinois, Ohio, and most of Kentucky; in this area upland corn was fired, while lowland needed rain badly. The continued absence of rain caused most upland corn to deteriorate badly throughout the belt, and at the close of the month much was burned beyond recovery, especially in the Southwest and the Ohio Valley. By the close of the month the continued drought had caused widespread injury to corn, with the larger part of the crop in Missouri ruined and much unfit even for silage. In southwestern Iowa the crop deteriorated badly, with many tassels and leaves burned white, while in the immediate Ohio River region much corn was beyond recovery. In the northern parts of Indiana and Illinois conditions were not so serious and were still fair in Nebraska and parts of Kansas, although rain was urgently needed.

**Cotton.**—Although conditions were fairly favorable at the beginning of the month in the western states of the Cotton Belt, the drought became progressively worse and at its close most of this section was unfavorably dry. In Texas progress of cotton in the southern third was mostly good throughout the month, except for some shedding, but in the northern two-thirds of the State deteriora-

tion had set in at the close, with complaints of small plants bolls shedding, and premature opening. Cotton made very little growth in Oklahoma also, with wilting and some shedding reported, while the general condition of the crop was only poor to fairly good at the close of the month. In central States of the belt most upland cotton made but little growth, except where local showers occurred and on some lowlands. In the Atlantic States conditions were much better, although rain was beginning to be needed in places at the close of the month. The first bale was marketed from Georgia toward the close, while marketing had advanced northward to Rusk County in Texas.

**Miscellaneous.**—At the close of the month pastures and meadows were badly burned and brown practically everywhere east of the Rocky Mountains and were affording little, if any, feed; water was scanty everywhere in this area. In the southwestern range country conditions were good, with the range, stock, and water supply largely excellent.

Minor crops deteriorated badly due to the dry weather, except for local areas where showers occurred. Tobacco was also seriously harmed in the dry regions, with forced cutting under way in northern Kentucky at the close of the month. Fruits shriveled under the intense heat, but most crops were apparently holding up fairly well.

## WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

### NORTH ATLANTIC OCEAN

By F. A. YOUNG

While the absence of heavy weather was not so marked as during the preceding month, the number of days with gales was below the normal over the greater part of the ocean and the number of gale reports received less than usual. The outstanding feature of the month was the unusual strength of the east and northeast trades in the southwestern section of the Caribbean Sea during the first and last decades of the month. Due to the lack of important cyclonic disturbances, the usual charts have been omitted.

Fog was unusually prevalent north of the 40th parallel and the number of days on which it occurred in different localities was as follows: Over the Grand Banks, from 13 to 15 days; along the American coast between the 40th and 45th parallels, from 5 to 23 days; over the steamer lanes between the 20th and 45th meridians, from 10 to 15 days; along the European coast, from 2 to 6 days.

Barometric data for several island and coast stations are given in the following table:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian)—North Atlantic Ocean, July, 1930

Stations	Average pressure	Departure	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
Belle Isle, Newfoundland.....	29.83	1-0.04	30.10	11th.....	29.50	22d.
Halifax, Nova Scotia.....	29.88	2-0.07	30.08	5th <sup>1</sup> .....	29.48	20th.
Nantucket.....	29.90	2-0.08	30.16	16th.....	29.66	20th.
Hatteras.....	29.98	2-0.06	30.20	5th.....	29.78	10th. <sup>1</sup>
Key West.....	30.04	2 0.00	30.14	23d <sup>1</sup> .....	29.94	14th.
New Orleans.....	30.06	2+0.03	30.16	23d <sup>1</sup> .....	29.90	13th.
Cape Gracias, Nicaragua.....	29.91	1 0.00	29.96	20th <sup>1</sup> .....	29.84	2d. <sup>1</sup>
Turks Island.....	30.11	1+0.04	30.18	22d <sup>1</sup> .....	30.02	6th.
Bermuda.....	30.15	2-0.03	30.30	16th.....	29.98	28th.
Horta, Azores.....	30.21	1-0.06	30.50	7th.....	29.76	19th.
Lerwick, Shetland Islands.....	29.77	1-0.03	30.03	9th.....	29.37	18th.
Valencia, Ireland.....	29.91	1-0.07	30.41	10th.....	29.32	17th.
London.....	29.86	1-0.12	30.24	7th.....	29.39	18th.

<sup>1</sup> From normals shown on Hydrographic Office Pilot Charts, based on observations at Greenwich mean noon, or 7 a. m., seventy-fifth meridian time.

<sup>2</sup> From normals based on 8 a. m. observations.

<sup>3</sup> And on other dates.

Reports were received indicating that unusually strong easterly and northeasterly trade winds prevailed in the Caribbean Sea on the 1st, 4th, and 6th, occurring on the 4th in the region of the Canal Zone.

Favorable weather was the rule over the greater portion of the ocean during the first decade of the month, except that on the 6th moderate gales prevailed over a limited area in the vicinity of Hatteras and also over the eastern section of the northern steamer lanes, while on the 9th a gale was reported by a vessel about 250 miles east of Belle Isle.

From the 11th to 14th a disturbance was over the 40th parallel between the 55th meridian and American coast that apparently moved but little during that period.

From the 15th to 17th a well developed low was over Ireland, and while, according to ship reports, moderate winds prevailed, on the 17th the station at Blacksod, Ireland, reported a northerly wind, force 7. This low drifted slowly eastward and from the 21st to 25th remained nearly stationary over the North Sea, accompanied by favorable weather.

From the 18th to 20th moderate gales prevailed over the steamer lanes east of the 25th meridian, while from the 21st to 24th light to moderate winds were the rule over the ocean as a whole.

On the 25th a low was central near 53° N., 20° W., that moved slowly eastward, increasing in intensity, and on the 26th moderate to strong gales were reported by vessels between the 20th meridian and the coast of Ireland. This disturbance then decreased in force and extent, although from the 27th to 29th westerly gales prevailed in the southerly quadrants.

On the 31st a well-developed depression was central near 47° N., 25° W., accompanied by winds of force 7 and 8 at time of observation, that increased to force 10 later in the day.

On the 20th, 23d, 29th, and 30th the northeast and easterly trade winds were again unusually strong in the southwestern Caribbean Sea, extending on the 29th to the Canal Zone.